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More math, science needed in schools: Governors make case for expanded technical education.
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America once was unrivaled on patents produced and its information technology exports. But no more. With India and China graduating three to four times more engineers than the United States, the next great ideas and innovations are likely to come from there.

If this country is to remain competitive, it must do a better job of channeling students and educators into math, science, engineering and technical fields. That's why the "Innovation America" initiative of the National Governors Association is spot-on. The association's chairwoman, Arizona Gov. Janet Napolitano, and chairman-elect, Gov. Tim Pawlenty, are right to sound the alarm. Both are pushing their fellow governors to "lead the charge" and bring a greater sense of urgency to the need for improved technical education.

The NGA initiative is grounded in the notion that future U.S. economic growth will be driven by the ability to generate ideas and innovations. It suggests a three-part plan for states to become more competitive: Ramp up the rigor of science, technology, engineering and mathematics (STEM) education to better prepare students for jobs; enable colleges to match what they teach and research with a state's high-growth industries, and encourage business innovation through supportive state policies, including tax incentives.

Those changes won't happen without getting more sharp students into the STEM pipeline, and that's no easy task - even with today's computer-literate, tech-savvy iPod generation. According to a 2005 student poll, only 11 percent of middle schoolers and 21 percent of sophomores were interested in STEM careers. That interest level won't cut it, when up to 33 percent of future job growth will be in technical fields.

To encourage more interest, Pawlenty and the state Department of Education have held STEM summits to expose more students to technical careers. And at the governor's urging, the Legislature last year agreed to require more math and science classes to graduate, increase funding for IB and AP programs and fund Minnesota's participation in an international study of math and science achievement.

As a result, the number of Minnesota students taking advanced tests increased by 20 percent.

The governors know that having a larger, well-trained cohort of technical students will lead to more research, development, innovation and higher-paying jobs. And that, in turn, will help the nation's competitive edge.

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